

## **Remarks**

The Examiner's Office action mailed September 25, 2006, which rejected pending claims 1-49, has been reviewed. In view of the following remarks, Applicants respectfully submit that the application is in condition for allowance.

The Examiner did not address or reject independent claims 33 and 42 (and their dependent claims) other than to find that they are pending. Applicants presume that they are therefore allowable.

The Examiner rejected claims 1, 5, 19, and 49 on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 11 and 99 of U.S. Patent No. 6,343,290, issued to Cossins et al. ("Cossins"), in view of U.S. Patent Publication No. 6,625,132, issued to Boettger et al. ("Boettger").

The Examiner found that Boettger discloses sectored performance and sectored performance characteristics (abstract, figure 1, and col. 2, lines 20-30, col. 3, lines 11-14 [sic], col. 4, lines 41-44, col. 4, lines 55-57, col. 5, lines 10-17, col. 5, lines 25-34, "subscribers in the Dead Zone see on the mobile station display that the CDMA system is available, their perception is poor performance", "plurality of sectors", note that Dead Zones are sectors of the communication zones identified according to their performance characteristics). The Examiner found that it would have been obvious to modify claims 11 and 99 of U.S. Patent No. 6,434,290 by incorporating the teachings of Boettger by providing sectorization to communication zones of U.S. Patent No. 6,343,290 according to their performance characteristics (e.g. identifying Dead Zones for having poor communications performance), for the purpose of efficient management of the communication network and improving communication quality by identifying the sectors with poor performance.

As pointed out by the Examiner, the Related Art portion of Boettger at column 2, lines 13-30 stated that it is the user's perception that the CDMA system has poor performance. Boettger did not state anything here about performance levels of the system or performance characteristics of a display. ("... Since subscribers in the Dead Zone see on the mobile station display that the CDMA system is available, their perception is poor system performance.") Thus, Boettger discussed the perception of the subscriber, not performance levels of the system or performance characteristics of a display.

As further identified by the Examiner, Boettger attempts to solve the need for a method of operating a wireless communication system and a mobile station adjacent a neighboring (overlying) wireless communication system. See column 3, lines 11-16 and column 4, lines 41-44. Boettger does not disclose anything having to do with a display of sector performance elements or otherwise.

Boettger discloses a CDMA wireless communication system, including base stations 102 and 106, infrastructure 112 that includes base station controllers (BSCs) and mobile switching centers (MSCs), a public switched telephone network 116, and a mobile phone (mobile station). Column 4, line 50-column 6, line 9. Other base stations (not shown) each serve a respective cell, which may include a plurality of sectors. Column 4, lines 55-57. The mobile station initiates reselection when moving from a coverage area of the wireless communication system. Column 4, lines 39-41. A dead zone is the area outside of cell in which the mobile station receives the paging channel from the base station with satisfactory signal quality according to prior standards but in which the mobile station cannot access the base station on the reverse link via an access channel or a traffic channel. Column 5, lines 12-17.

A typical measure of the quality of forward link transmissions is the ratio  $E_c/I_o$  (dB) where  $E_c$  is the strength of the carrier of the paging channel and  $I_o$  is the interference signal.  $I_o$  is primarily caused by forward link transmissions from neighboring cells operating on a same carrier frequency, i.e. other cells of the wireless communication system. Column 5, lines 18-24.

In operation, a mobile station may move from a position to another position in a dead zone in which the mobile station cannot access the base station. Column 5, lines 10-17. As the mobile station moves away from the base station, it is also moving away from other base stations, the paging channel carrier decreases, the interference signal decreases, but the ratio thereof changes little, and the mobile station is not aware that it is entering a dead zone. So, according to the invention, additional mechanisms are used to determine when a mobile station is entering a dead zone. Column 5, lines 18-44. Boettger does not disclose anything to do with displaying sector performance elements with sector performance characteristics.

Boettger does not disclose sector performance characteristics as alleged by the Examiner. In fact, Boettger does not disclose or teach displaying anything or generating anything for display other than stating a subscriber may see on their mobile station display that the CDMA system is available.

As claimed in Applicants' claims 1, 5, 19, and 49, a sectored performance characteristic is a display characteristic generated for display. See Application at Figures 5A-5C; Figure 40; page 23, lines 1-5; page 25, lines 9-12; page 26, lines 6-23; page 27, lines 1-15; page 40, lines 11-20; page 40, lines 9-15; page 61, lines 19-23; page 65, lines 6-16; page 65, line 17-page 676, line 3; page 69, lines 3-8; page 73, lines 3-7; page 74, lines 4-14. The Examiner must construe the claims as broadly as is reasonable and consistent with the specification. MPEP 2111, 2111.01, and 2106; *In re Thrift*, 298 F.3d 1357, 63 USPQ2d 2002, 2006 (Fed. Cir. 2002); *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005).

Further, the claims themselves clearly identify that sectored performance characteristics are for display elements. For example, claim 1 requires "display elements comprising . . . sectored performance elements having sectored performance characteristics." For example, claim 5 requires "display elements comprising . . . sectored performance elements each having at least one sectored performance characteristic." For example, claim 19 requires "generating display elements for display, the display elements comprising . . . sectored performance elements each having at least one sectored performance characteristic." For example, claim 49 requires "generating for display for the graphical interface at least one sectored performance element having a sectored performance characteristic."

Nothing in Boettger discloses, teaches, or suggests sectored performance characteristics. For this reason, Applicants submit the claims are patentable.

Additionally, the Examiner's identification of a motivation to combine is therefore lacking. The Examiner found that the motivation to combine was the following: It would have been obvious to one of ordinary skill in the art at the time of the invention to modify claims 11 and 99 of U.S. Patent No. 6,343,290 by incorporating the teachings of Boettger by providing sectorization to communication zones of U.S. Patent No. 6,343,290 according to their performance characteristics (e.g. identifying Dead Zones for having poor communications performance), for the purposes of efficient management of the communication network and improving communication quality by identifying sectors associated with poor performance.

Thus, the Examiner identified the Dead Zones in Boettger as a performance characteristic, and the motivation is based on that proposition. Applicants have shown that Boettger does not disclose or teach performance characteristics for display elements. Therefore,

the Examiner's proposed motivation to combine does not meet the requirements of MPEP 4141-2144 et seq.

Additionally, generally owners of wireless communication systems attempt to improve performance and make their systems more efficient. For example, Applicants noted in the Background of the invention that managing wireline and wireless networks has become increasingly difficult, and service providers must provide expansive coverage, adequate capacity, high reliability, and quality customer service to be competitive in the market and to meet consumer needs. Applicants further noted that a system is needed to view, configure, and manage wireline and wireless networks and to provide network data to a user of the system in a context that makes the network data useful and efficient. See Application, page 1, lines 6-18.

The issue is what is the motivation to combine one or more references to reach the claimed invention. There must be a motivation to make the claimed invention. MPEP 2144. Such a motivation was not identified.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP 2142.

Even when combined, the references do not teach or suggest the claimed limitations, including display elements comprising sectorized performance elements having sectorized performance characteristics.

Further, there are secondary considerations. Service providers continue to try to find ways to show performance. But, many of the systems use data tables, spread sheets, and other mechanisms that are hard to read and interpret. Many of these required network or systems engineers to review and interpret the data. The systems of the present application provide sectorized performance elements. In a cell network, for example, these systems enable a user to see performance data, at a glance, for each individual sector in a cell site. In the cell systems of Cossins, this was not possible, and either the cell data for the entire cell site as a whole was

depicted or only one sector for the cell site could be depicted. Under the present systems, customer support, engineers, and others are able to see each individual sector of the cell site and are better able to determine what issues exist for a network. Similarly, in other systems for other types of networks, multiple sectors enable a user to see different aspects of each sector of a network element. This is an advance over Cossins.

Based on the remarks above, Applicants submit that claims 1, 5, 19, and 49 are allowable. Withdrawal of the rejection of those claims is requested. Applicants also submit that claims 33 and 42 and the claims depending therefrom are allowable.

Because claims depending from claims 1, 5, 19, and 49 depend directly or indirectly therefrom and include all of the limitations of the respective base claim, each of which is believed to be patentable, these claims also are believed to be allowable. Withdrawal of the rejections of claims depending from claims 1, 5, 19, and 49 respectfully is requested.

Because depending from claims 1, 5, 19, and 49 are believed patentable, it is not necessary to discuss patentable limitations of claims depending therefrom, the reference, or any other issues. The lack of a discussion of patentable limitations of those dependent claims should not be construed to mean that there are not patentable limitations in those dependent claims.

Further, all reasons for patentability of the independent and dependent claims have not necessarily been discussed herein. No implication or construction should be made therefore.

Applicants have no further remarks with regard to any references cited by the Examiner and made of record, whether or not acted upon by the Examiner in the action's rejections, even if specifically identified in the action or any other paper or written or verbal communication. No implication or construction should be drawn about any review of the same by Applicants or Applicants' attorney.

Based on the foregoing, it is submitted that the Applicants' invention as defined by the claims is patentable over the references of record. Issuance of a Notice of Allowance is solicited for all pending claims.

Applicants' attorney welcomes the opportunity to discuss the case with the Examiner in the event that there are any questions or comments regarding the response or the application.

This is intended to be a complete response to the Examiner's Office action mailed on September 25, 2006.

Respectfully Submitted,

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